NOVITATES TAXONOMICAE III
ex Herbario Academiae Rheno-Traiectinae

edidit

A. PULLE (Utrecht) m. Dec. 1940.
(Cum tabulis V—VII).

TURNERACEAE auctore Elizabeth Bremekamp (Utrecht).

In my revision of the *Turneraceae* for PULLE's Flora of Suriname, I have accepted the genera *Piriqueta* and *Turnera* in the delimitation given to them by URBAN. The distinction rests on the presence in *Piriqueta* of a "corona" at the insertion of the petals. This corona, however, is often so weakly developed as to be almost invisible, and as moreover, the African representatives of *Piriqueta* appear to be more easily distinguishable from the American ones than the latter from some of the *Turneras*, the taxonomic importance of this organ appears to be somewhat dubious. A decision of the question, however, would necessitate a more extensive study of the genera than the demands of the present revision would justify; owing to lack of material, moreover, such a study would be impossible at the present time.

The only species by which the genus *Piriqueta* is represented in Suriname was split by URBAN in a fairly large number of varieties, of which four have been quoted by him from Suriname, namely: the var. *genuina*, the var. *latifolia*, the var. *foliosa* and the var. *bracteolata*. The var. *foliosa* differs from the type mostly in a more luxuriant growth and is very probably nothing but a form growing under somewhat different conditions. The bracteoles of the var. *bracteolata* are rather variable in size, and even in the specimen quoted by URBAN in the main not different from those found in other plants; it is not impossible that the somewhat larger size of some of them may be due to the presence of parasites. The leaves of the var. *latifolia* are distinctly wider than those of the type, and it is not improbable that this difference will prove constant. A study in the field, eventually supplemented by culture experiments,

however, would be necessary to decide the point. For the present it is perhaps better not to lay too much stress on this rather insignificant difference.

Among the seven species of *Turnera* now known from Suriname, one is new: In PULLE's Enumeration the plant I have in view was quoted under the name *T. Glazovii* Urb., but though doubtless nearly related to this species, it is nevertheless sufficiently different to be regarded as distinct.

Turnera grandifolia E. Bremekamp n. spec., maxime ut *T. Glazovii* Urb., sed foliis majoribus, stipulis ad nihilum redactis, calyce bis altiore, petalis luteo-rubris, haud luteolis ab ea satis diversa.

Frutex parce ramosus, 1.5 m altus. *Rami* teretes, 4 mm diam., primum striatuli et pilis luteis induti. *Folia* in petiolum 10—25 mm longum, basi paulum dilatatum contracta; lamina oblanceolata, foliorum infra inflorescentiam insertorum 9—25 cm longa et 1.2—5 cm lata, acuminata, basi uno vel duobus paribus glandularum discoidearum munita, integra vel remote dentata, glabra vel sparse pubescens, costa subtus prominente, nervis utroque latere costae circ. 10. *Stipulae* nullae. *Flores* subsessiles, solitarii in axillis foliorum magnitudine plus quam dimidio redactorum, in capitulum terminale congesti, heterostyli; pedicelli 0—2 mm longi; bracteolae ad basin calycis insertae lineares, 9—10 mm longae, acutae, pubescentes. *Calyx* extus pubescens, tubo 5 mm alto, lobis anguste linearibus 20 mm longis, acutissimis, 3-nerviis. *Petala* luteo-rubra, oblanceolata, 30 mm longa, glabra. *Stamina* 1.5 mm supra basin calycis inserta; filamenta infra dilatata, glabra, floris brevistyli 7 mm longa; antherae lineari-oblongae, 3.5 mm longae, apiculatae. *Ovarium* conicum, 3 mm altum, glabrum, laeve, ovulis 30—35. *Styli* teretes, pubescentes, floris brevistyli 2 mm longi; stigmata brevia flabellata. Flos longi-stylus, fructus, semina ignoti.

H a b. Guianam Batavorum.
S u r i n a m e : Upper Litanie River, VERSTEEG n. 427 in herbario trajectino (U.), typus.

QUIINACEAE auctoribus J. Lanjouw et P. F. Baron van Heerdt.

In Arch. Jard. Bot. Rio de Jan. IV, 1925, p. 139, DUCKE described a new genus of the *Quiinaceae*, nearly related to *Quiina* Aubl. and *Touroulia* Aubl., which he called *Lacunaria*. According to DUCKE this genus can be distinguished from the two others by the presence

of latex-containing cavities in the pericarp, by flatter and thinner cotyledons and by a thicker endosperm.

A. C. SMITH, in Trop. Woods No. 58, 1939, pp. 25—32, states that *Lacunaria* Ducke, differs from *Quiina* Aubl. not only in the characters mentioned by DUCKE, but also in the verticillate arrangement of the leaves and by the presence of more than two styles.

Studying the *Quiinaceae* for the "Flora of Suriname" we noticed in sections through ovaries and young fruits of *Quiina* species similar cavities as have been described by DUCKE for *Lacunaria*. We decided, therefore, to make in both genera a careful study of the structure of the pericarp. It turned out that the cavities are present in both, but that in *Quiina* they are always smaller and often hardly visible. The most important character on which DUCKE had based his genus, therefore, proved to be unreliable. Important for the morphology of the family is the fact that the cavities are not present from the beginning, but that they are of a "secundary" nature. In sections through ovaries of *Lacunaria* as well as of *Quiina* the exocarp appears to be covered with protuberances which are clavately thickened towards the top, enclosing in this way with their basal parts a kind of "cavities". The latter are, therefore, in open communication with the outer world. Their walls and, up to a certain measure, the other parts of the protuberances also are clothed with a special kind of cells, which seem to disintegrate more or less. The "cavities" are often filled with a yellowish or greyish granular substance. See the figures 1—4 on plate V. It seems that the wall of the protuberances, in fact the whole outside of the ovary is clothed with cells containing a resinaceous substance which is excreted afterwards and fills the "cavities": it is DUCKE's "latex". The clavately thickened protuberances cohere at the top, and so the pericarp of the older fruits appears to contain real cavities. This can be seen on fig. 5, plate V, showing a photograph of a fruit of *Lacunaria Jenmani* (Oliv.) Ducke cut in two. The boundary lines between the protuberances however are still easily visible. The fruits moreover are liable to break into pieces along these lines. All *Quiinaceae* which we studied (3 species of *Lacunaria* and 5 of *Quiina*) show these protuberances and secundary cavities more or less distinctly. For the distinction of the genus *Lacunaria* they have therefore no value; for they are a family character.

Nevertheless there appear to be sufficient reasons for maintaining the genus *Lacunaria* Ducke, though it may be possible that there are transitions. In that case it would be better to place it as a section or subgenus under *Quiina*. The differences between the three genera are shown in the following key:

Leaves pinnate. Calyx 5-dentate............ *Touroulia* Aubl.
Leaves simple. Sepals free.
Leaves opposite. Flowers small, polygamo - dioecious.
Ovary 1—2-celled.......................... *Quiina* Aubl.
Leaves verticillate. Flowers large, dioecious.
Ovary 6—12-celled..................... *Lacunaria* Ducke

There are still other differences between *Lacunaria* and *Quiina*, viz. the thin cotyledons of the first and the thicker ones of the second genus, and the character of the hairs on the seeds, which are long in *Lacunaria* and short in *Quiina*. However, as we had ripe fruits of a few species only, we are not certain that these differences are found in all cases.

Quiina parvifolia Lanj. & v. Heerdt nov. spec.

differt ab omnibus congeneribus foliis parvis, stipulisque foliaceis.

Frutex, ramulis juvenilibus, petiolis, limbi basi supra sparse minute pilosis, ceterum glaber. Folia sessilia vel brevissime (1—2 mm) petiolata, 4—8 cm longa, 16—32 mm lata, elliptica, apice breviter et obtuse caudato-acuminata, basi acuta in petiolos minutos decurrentia, coriacea vel subcoriacea, nitida vel subnitida, margine integra vel inconspicue undulata, nervis lateralibus c. 10 supra distincte prominentibus. Stipulae foliaceae, 10—16 mm longae, 3—6 mm latae, lanceolatae vel ovato-lanceolatae, basi rotundatae, apice acutae, coriaceae, persistentes. Flores ♂ 2—3-fasciculati, fasciculis plerumque oppositis, in racemis 5—7 cm longis; rhachis gracilis, c. 4—6 mm longa. Sepala inaequalia, 2 exteriora c. 1.5 mm longa, c. 1 mm lata, ciliata, 2 interiora cucullata, hemisphaerica, c. 1 mm longa et lata, ciliata. Petala 4—5, late oblonga, c. 2.5—3 mm longa, glabra. Stamina c. 40—45, filamentis gracilibus, c. 1.5 mm longis, nonnumquam fere ad apicem connatis, antheris parvis, subglobosis. Specimina ♂ sola vidi.

S u r i n a m o : fluv. Corantijne, supra os fluv. New-River (ROMBOUTS n. 181, Typus (U.), ♂fl. m. Sept.).

MARCGRAVIACEAE auctoribus J. L a n j o u w et P. F. B a r o n v a n H e e r d t.

Norantea pendula Lanj. & v. Heerdt nov. spec.

N. pedunculari valde affinis, differt ab ea foliis longioribus, staminisque plurimis.

Frutex scandens. Folia oblonga vel subovato-oblonga, 8—12 cm

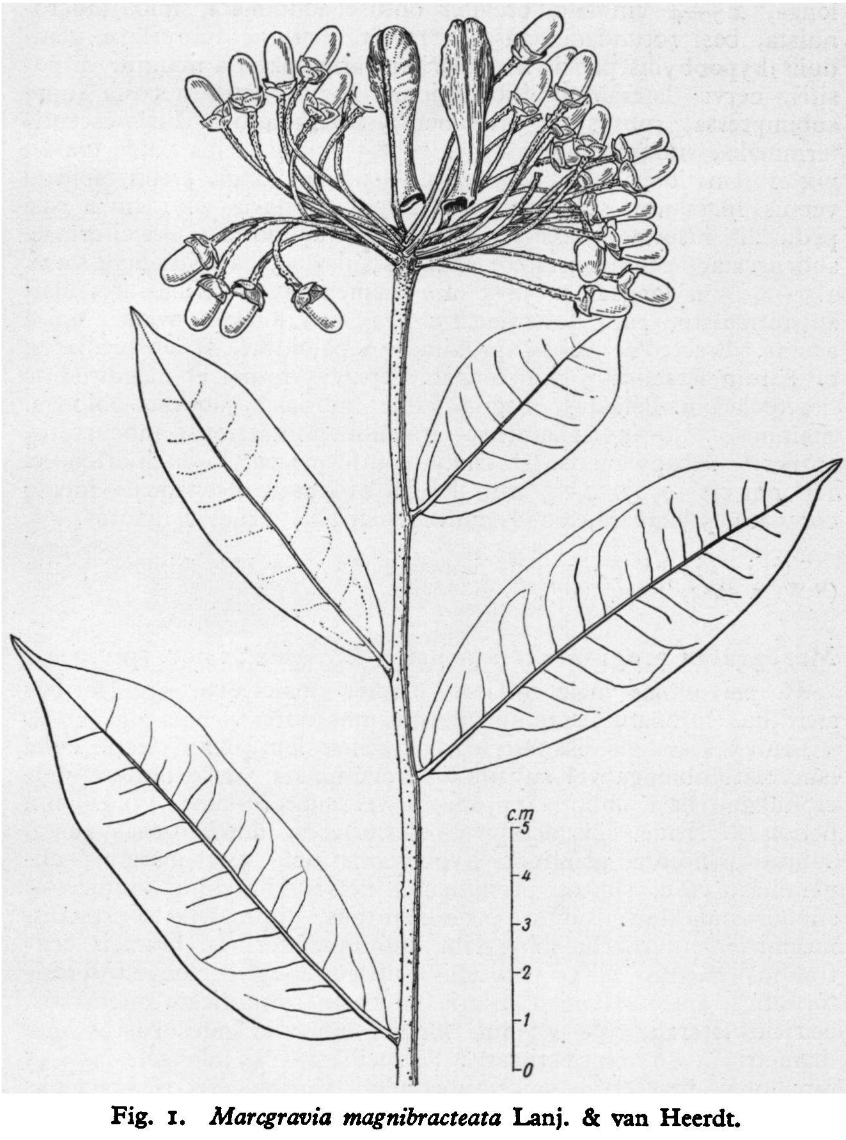


Fig. 1. *Marcgravia magnibracteata* Lanj. & van Heerdt.

longa, 2.5—4 cm lata, breviter obtuse acuminata, apice mucronulata, basi rotundata, crasse coriacea, margine subreflexa, glandulis hypophyllis paucis irregulariter vario spatio a margine dispositis, nervis lateralibus inconspicuis, angulo acuto a costa supra subimpressa, subtus vix prominente, divergentibus. Inflorescentia terminalis, subumbelliformis, c. 7—8-flora. Rhachis valde crassa, vix 1 cm longa. Pedicelli c. 4.5—5.5 cm longi, erecti, apicem versus incrassati, subangulati. Bracteae (nectaria) c. 1 cm a basi pedicelli insertae, sessiles, plerumque cylindricae, sacciformae, subcurvatae, pendulae latere abaxiali sulcatae, basi subincrassatae, 1.5—2.5 cm longae, c. 3—5 mm diametientes, orificio orbiculari subauriculato, raro foliaceae, c. 12 mm longae, ovatae, apice acutae. Bracteolae calyci proximae, sepaloideae, semiorbiculares, c. 8 mm latae, c. 5 mm longae. Sepala 5 forma et magnitudine bracteolarum. Petala 5, magna, valde imbricata, obovato-oblonga. Stamina c. 50—55, filamentis gracilibus, linearibus, subcurvatis, antheris subapplanatis. Ovarium coniforme, stylo cylindrico, c. 1.5 mm crasso, c. 2—3 mm longo, stigmate inconspicue lobato coronato, 5-loculare, loculis multiovularibus. Fructus ignotus.

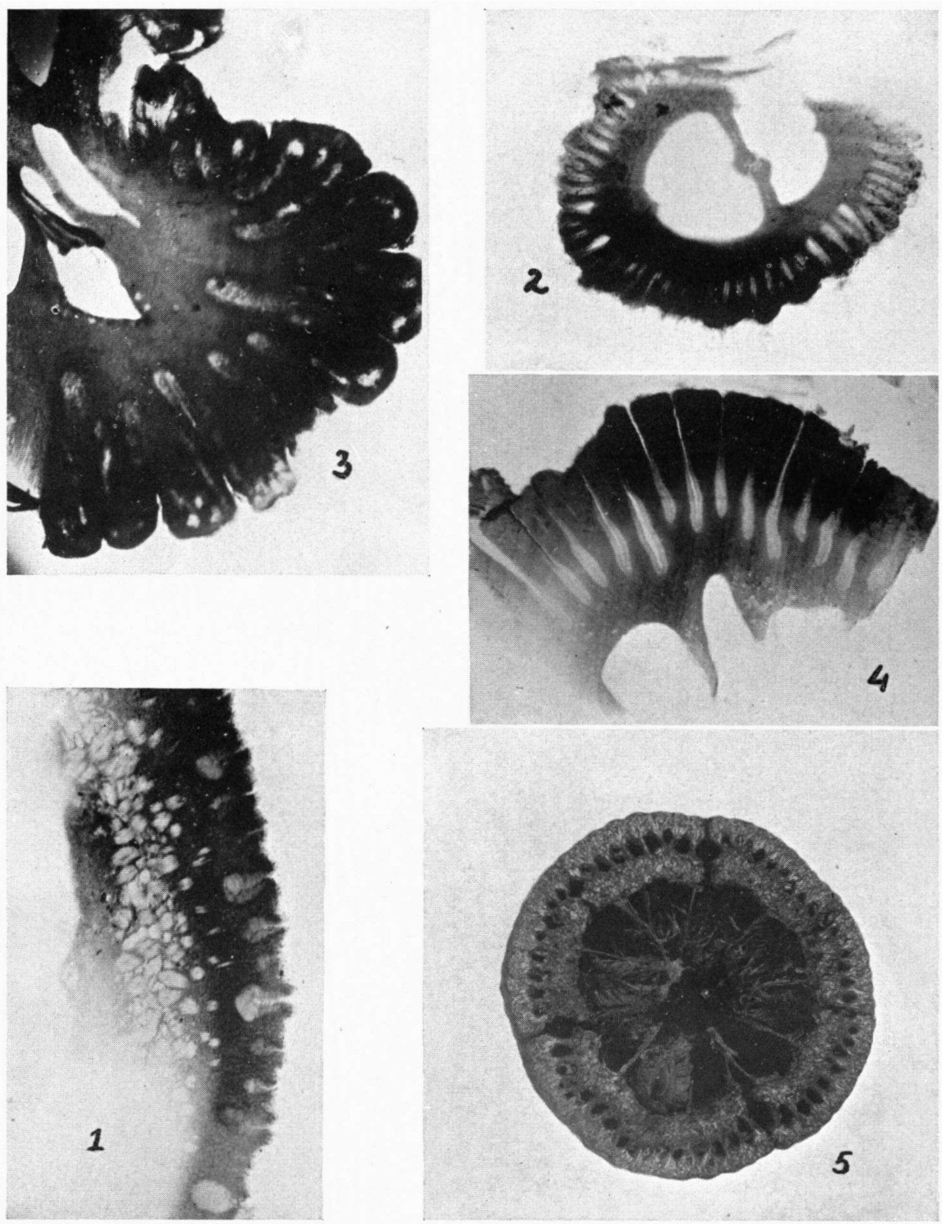
S u r i n a m o : in montibus Emmagebergte, "top II", altitudine 700 m (B.W. n 5682, Typus (U.), fl. m. Mart.).

Marcgravia magnibracteata Lanj. & v. Heerdt nov. spec.

M. polyanthae Delp. affinis, bracteis majoribus, nec floribus sterilibus coronatus, staminisque plurimis differt.

Frutex scandens. Ramuli cortice dense lenticellato tecti. Folia lanceolato-oblonga vel subelliptica, acuminata, apice minute mucronulata, basi obliqua et obtusa vel subrotundata, vix 1 mm petiolata, firme chartacea vel subcoriacea, supra opaca fusca, subtus pallidiora, glandulis hypophyllis una serie margini subparallela, costa subtus prominente, nervis lateralibus numerosis subhorizontalibus, subtus prominentibus, supra vix conspicuis, racemi erecti, rhachi abbreviata, subumbelliformes, bracteis centralibus magnis 2—3, pedicellis subaequilongis, elongato-scrotiformibus, apice clavatis, sulcatis, in basin cylindricam angustatis, orificio laterali, 35—40 mm longis, apice 11 mm, basi 5 mm diametro, 5—6 mm petiolatis. Pedicelli 20—30, elongati, 35—45 mm longi, praesertim apice tuberculati, floribus erectis, bracteolis sepaloideis. Sepala 4, semi-orbicularia, extus minute pubescentia, 3 mm longa, 5 mm lata, apice obscure emarginata. Corolla calyptriformis, cylindrico-conica, apice obtusa, 12 mm longa, 6 mm diametiens, basi circumscissa decidua. Stamina numerosa

PLATE V.



Sections through ovaries of 1. *Quiina oblanceolata* Sandw. 2. *Quiina integrifolia* Pulle 3. *Lacunaria crenata* (Tul.) A. C. Smith. 4. *Lacunaria Jenmani* (Oliv.) Ducke. 5. Section through ripe fruit of *Lacunaria Jenmani* (Oliv.) Ducke.

(50—65), filamentis inaequalibus, filiformibus, applanatis, antheris lanceolato-oblongis, 1—4 mm longis, subsagittatis, longitudinaliter dehiscentibus, connectivis latis. Ovarium subglobosum, c. 3 mm diametiens, stylo brevi crasso, 8—9-loculare, loculis pluriovulatis.

Surinamo: fluv. Lawa (B.W. n. 4119, Typus (U.), fl. m. Nov.).

DILLENIACEAE auctore J. Lanjouw.

Doliocarpus Rolander.

The genus *Doliocarpus* was described by ROLANDER in "Kongl. Svensk. Vetensk. Akad. Handl. XVII (1756), p. 260, t. IX (edit. germ. 1757, p. 249, t. IX)". His description was based on specimens of two new species, which he collected himself during his stay in Suriname. The genus was validly published, but the species were not given binary names. They were described as follows:

Doliocarpus caule scandente; foliis ovatis, dentatis, pedunculis lateralibus, unifloris.

Doliocarpus caule stricto; foliis deflexis, ovato-lanceolatis, dentatis; floribus terminalibus.

The first species is figured on his plate.

In 1791 GMELIN, in Syst. nat. ed. XIII, p. 806, made valid binary combinations for the two species, viz. *Doliocarpus Rolandri* and *Doliocarpus major*. He numbered them 1 and 2, but strangely enough, he reversed the order in which ROLANDER had published them, so that *Doliocarpus caule scandente etc.* = *D. major* Gmel. and *Doliocarpus caule stricto etc.* = *D. Rolandri* Gmel. This was probably done unintentionally. It is a pity that the name *D. Rolandri*, as will be proved below, cannot be kept up, but it is a good thing that ROLANDER, who always felt he was in the wrong, and whose journey to Suriname did not give him much satisfaction, never knew it.

Apparently unaware of GMELIN's work POIRET, in Encycl.méth. bot. suppl. II, 1811, pp. 499—500, named both species again, viz. *Doliocarpus scandens* Poir. and *Doliocarpus strictus* Poir. The first name is synonymous with *D. major* Gmel. and the second a synonym of *D. Rolandri* Gmel. A. P. DE CANDOLLE, in Syst I, 1818, p. 405, adopted one of GMELIN's names, viz. *Doliocarpus Rolandri* Gmel. (mentioning as a synonym *D. scandens* Poir.), and one of POIRET's names, viz. *Doliocarpus strictus* Poir. (with the synonym *D. major* Gmel.). In this way DE CANDOLLE caused a regrettable confusion: in the first place he adopted, apparently without any reason, one name from each author; and secondly, which is even worse, he did not notice that GMELIN had inverted the sequence of ROLANDER's

species, so that he gave a wrong description of *D. Rolandri* Gmel., and cited a wrong synonym. Apparently because they did not consult the literature, several botanists have followed DE CANDOLLE, so that the confusion has remained to the present day.

By WILLDENOW, in Spec. plant. II, 1799, p. 1241, the two species had been placed in the genus *Tetracera*, respectively as *T. Doliocarpus* Willd. and *T. stricta* Willd.

As far as one can ascertain all this name-giving is based neither on a study of ROLANDER's, nor on that of other specimens, but only on his paper.

E. MEYER was the first botanist who, in his "Plantarum surinamensium corolliarum primum", issued in 1825 in Nov. Act. Leop. XII. 2, did not copy his predecessors, but gave an elaborate description of *Doliocarpus Rolandri* Gmel. (on p. 815), based on a specimen collected in Suriname by HOSTMANN. This specimen, however, is not GMELIN's *D. Rolandri*, but *D. Rolandri* in the sense of DE CANDOLLE, i.e. GMELIN's *D. major*.

In 1863 EICHLER, in Fl. Bras. XIII. 1, p. 79, gave a full description of *D. Rolandri* Gmel., citing a great number of synonyms and specimens. On p. 75 of the same work, he also gave a detailed description of *D. dentosus* Mart., of which a short diagnosis had been published by MARTIUS in 1841 in Flora XXIV, App. II, p. 65. Since then the presence of these two species in Guiana has been mentioned by several authors, who always accepted for them the names used in EICHLER's descriptions. It is evident however from the literature and the synonyms cited by EICHLER under *D. Rolandri* Gmel. that he too had not noticed the confusion created by DE CANDOLLE, for he cited ali, right and wrong, under *D. Rolandri* Gmel. His description refers to a quite different species, viz. *Doliocarpus dentatus* (Aubl.) Standley, and his synonyms to begin with *Tigarea dentata* Aubl. belong to this plant; the other ones, however, belong to D. major Gmel.

In 1928 WILLIAMS, in Fl. Trin. & Tobago I. 1, p. 8, gives a description of *D. dentatus* (Aubl.) Standl., where he cites: "Fl. Bras. (in part) as *D. Rolandri* Gmel.". In a note WILLIAMS writes: "The name *D. Rolandri* Gmel. was incorrectly applied by EICHLER and others to a mixture of *D. major* Gmel. and *D. dentatus* (Aubl.) Standl. It is really synonymous with *D. strictus* Poir., a species which has remained unidentified down to the present day".

In 1931 SANDWITH, in Kew Bull. n. 4, p. 171, cites under *D. major* Gmel. some specimens from British Guiana giving *D. dentosus* Mart. as a synonym.

In the literature one finds that ROLANDER's herbarium is preserved

in the Botanical Museum, Copenhague. At my request the Director informed me that ROLANDER's specimens of *Doliocarpus* are not present in that herbarium. According to C. CHRISTENSEN (in „Den danske botaniks historia" I : 1, 1924—26, p. 151) most of ROLANDER's herbarium has been lost. I had already given up the hope to find ROLANDER's specimens, when, by mere chance, I got on the right track. This summer Prof. PULLE received from Prof. FRIES, Stockholm the manuscript of a paper on the Suriname *Annonaceae*, which he prepared for the Flora of Suriname. As in this paper some specimens collected by ROLANDER were quoted, I asked Prof. FRIES if he could give me some further information with regard to ROLANDER's specimens. Prof. FRIES replied that both species of *Doliocarpus* were present in the Herbarium Bergianum at Stockholm, and enclosed in his letter the excellent photographs of the two specimens which are reproduced in this paper. He gave me moreover some information with regard to ROLANDER and his collections, mentioning inter alia the book of CHRISTENSEN cited above. I am much indebted to Prof. FRIES for his kindly assistance.

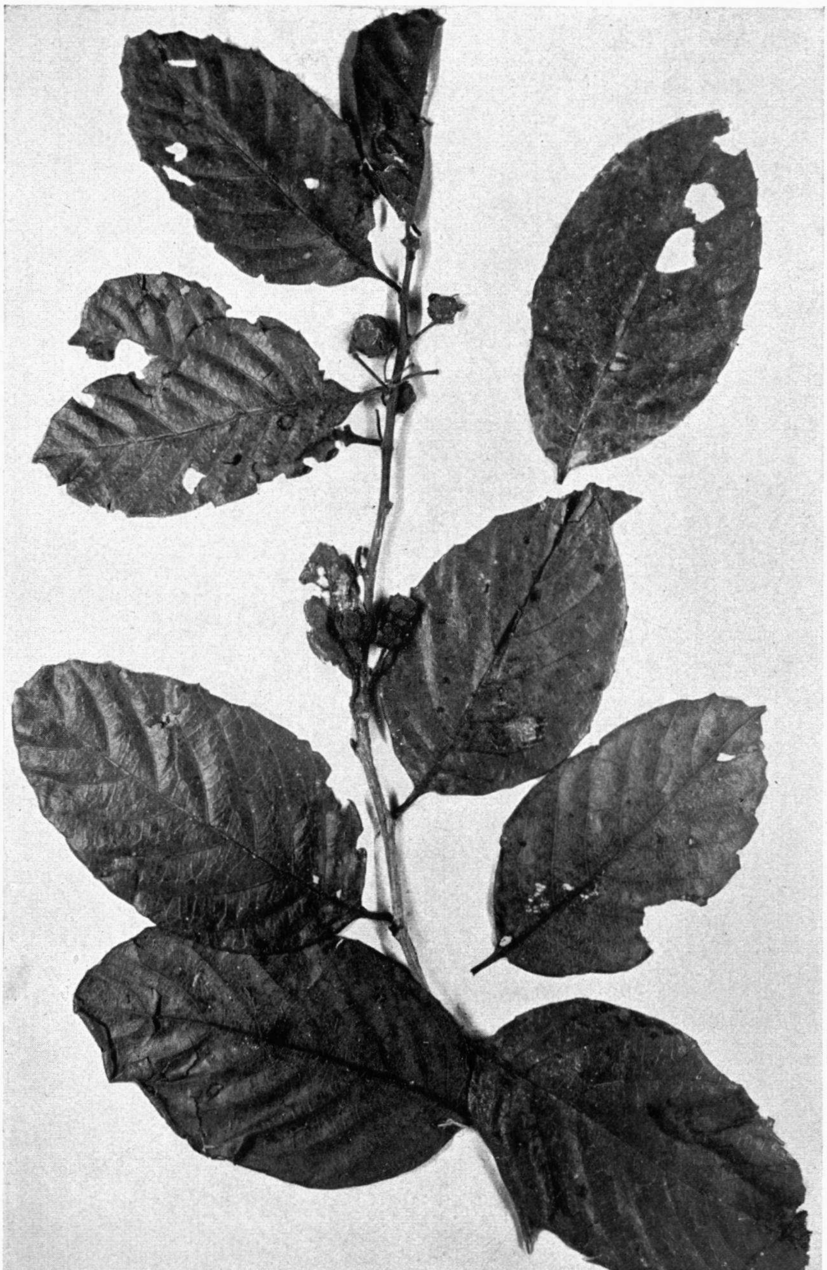
Firts of all I have to rectify an error. ROLANDER was a Swede, and not a Dane as I wrote in an earlier paper. As mentioned above, most of ROLANDER's specimens seem to have been lost, but as we now know a few specimens are still to be found in the Herbarium Bergianum (Bergianska Trädgarden). Prof. FRIES supposes that they had been bought by P. J. BERGIUS.

The specimens of the two species of Doliocarpus are, according to Prof. FRIES, probably plants collected by ROLANDER. Photographs of these specimens are reproduced on plates VI and VII. On the back of the first sheet are written the first descriptive phrase of ROLANDER and the place where this was published and further, somewhat apart from the rest, the names *Doliocarpus Rolandri* Gmel. and *Tetracera Doliocarpus* Willd. On the back of the other sheet are the descriptive phrase of ROLANDER's second species and the names *Doliocarpus strictus* and *Tetracera stricta* Willd. Further, on both specimens is written „e Surinamo". The names of WILLDENOW are put between brackets; obviously they must have been written on the sheets after the appearance of DE CANDOLLE's Systema, and very likely they have been copied from this work, as in the sequence of the species the same error has been made. On what grounds Prof. FRIES came to the conclusion that these specimens were collected by ROLANDER I do not know, but I suppose that he recognized them by their resemblance to other specimens collected by the latter. As the present paper was already in the press when I received Prof. FRIES' letter and photographs and as the publication could not be postponed while

under the present circumstances this would mean a delay of several months, I have not been able to ask further information, but I am quite convinced that Prof. FRIES is right in regarding these specimens as ROLANDER's. However, it is not likely that the specimen shown in plate VI is the same as that figured on ROLANDER's plate. Our photograph represents doubtless his first species and it resembles his figure in the fruits having reached the same state of maturity, but on the other hand it differs in the arrangement of the leaves and fruits so much from ROLANDER's engraving, which gives one the impression of being rather accurate, that it can not be taken to represent the same branch. It seems to me, that the Stockholm specimen may be regarded as a duplicate of the type; and this is the more important as the actual type specimen apparently has been lost.

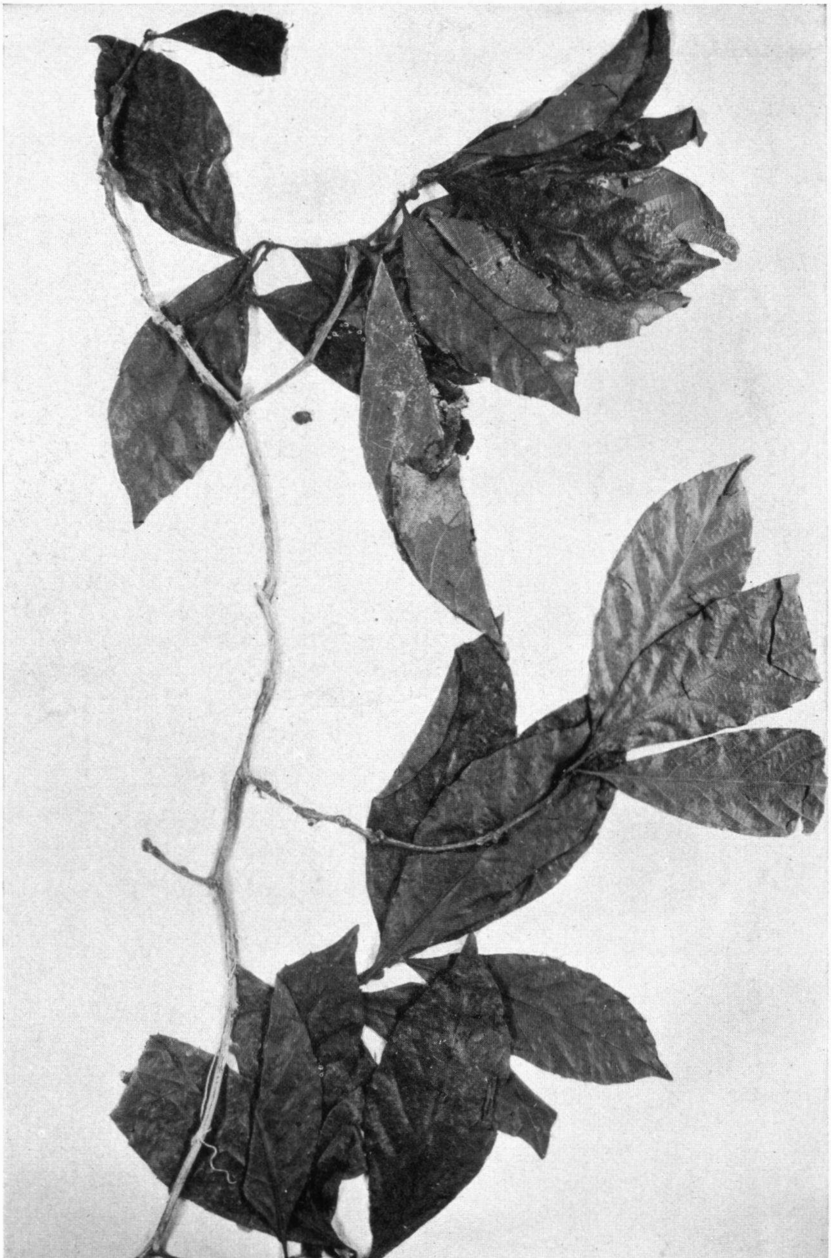
The specimen reproduced on plate VI, therefore, may be regarded as representing the type of *Doliocarpus major* Gmel. (= *D. sandens* Poir.), and I quite agree with SANDWITH that it is conspecific with the plant known since EICHLER as *D. dentosus* Mart., and that the latter, therefore, is a synonym of *D. major* Gmel. The specimens for which E. MEYER and SPLITGERBER, following DE CANDOLLE, have erroneously used the name *D. Rolandri* also belong to this species. The first species of ROLANDER is now indentified. Its name is *D. major* Gmel.; and it is easily recognizable by the nature of the peduncles and by the few-flowered fascicles. These characters are clearly shown in the specimen in the Herbarium Bergianum and in ROLANDER's figure.

The identity of ROLANDER's second species, the *Doliocarpus caule stricto* etc. is more difficult to establish, as it has not been figured in his paper. At first, when I had not yet received the photograph of the specimen in the Herbarium Bergianum, I thought that it might be identical with *Doliocarpus dentatus* (Aubl.) Standley. However, if we take the specimen figured on plate VII as the type, and for the present we are compelled to do so, this is impossible. This specimen is in my opinion merely a small-leafed form of ROLANDER's first species (= *D. major* Gmel.). Of the latter I have seen abundant material from Suriname. The leaves vary considerably in shape and size; but the nervation is rather characteristic, and this is the same in both Stockholm specimens. That ROLANDER's second species should be an erect shrub and the first one a climber is of little value. The collector labels of species of *Doliocarpus* very often contain conflicting statements with regard to the habit of these plants. Probably under special conditions the plants develop as shrubs instead of growing out to lianas, and it is not improbable too that



Doliocarpus caule scandente etc. Rolander (Herbarium Bergianum, Stockholm).

PLATE VII.



Doliocarpus caule stricto etc. Rolander (Herbarium Bergianum, Stockholm).

statements regarding the habit are sometimes erroneous, namely if the plant is climbing on a shrub and is confused with the latter. The specimen which we have to regard as the type, moreover, looks much more like a climber than like an erect shrub. What ROLANDER meant with "floribus terminalibus" is not clear. The specimen (see plate VII) shows an axillary flowerbud and some axillary pedicels on the upper and the lower lateral branch. In both specimens the flowers are therefore axillary. The error is perhaps due to the circumstance that in the first specimen the fruits are inserted on a robust terminal branch, whereas in the other one the flowers are found on rather short lateral shoots. At any rate there is no reason to doubt that the two plants in the Herbarium Bergianum are conspecific, and that we have therefore to regard ROLANDER's two species as one. As is pointed out already, the right name is *D. major* Gmel. A description with full synonymy follows here.

Doliocarpus major Gmel., Syst. nat. II (1791), p. 805; Sandwith in Kew Bull. 1931, p. 171; — *Doliocarpus caule scandente; foliis ovatis, dentatis, pedunculis lateralibus, unifloris;* and *Doliocarpus caule stricto; foliis deflexis, ovato-lanceolatis, dentatis; floribus terminalibus* Rolander in Kongl. Svensk. Vetensk. Akad. Handl. XVII (1756), p. 260, t. IX; edit. germ. 1757. p. 249, t. IX; — *Doliocarpus Rolandri* J. F. Gmel., Syst. nat. II (1791), p. 805; D.C., Syst. I (1818), p. 405; id., Prodr. I (1824), p. 69; E. Meyer in Nov. Acta Leop. XII. 2 (1825), p. 815; Spreng., Syst. veg. II (1825), p. 568; Splitgerber ex de Vriese in Ned. Kruidk. Arch. I (1846), p. 236; Triana & Planchon in Ann. Sc. nat. 4e. sér. XVII (1862), p. 17; — *Tetracera Doliocarpus* and *Tetracera stricta* Willd., Spec. II (1799), p. 1241; — *Doliocarpus scandens* Poir., Encycl. méth. bot. Suppl. II (1811), p. 499; - *Doliocarpus strictus* Poir., Encycl. méth. bot. Suppl. II (1811), p. 500; DC., Syst. I (1818), p. 405; id., Prodr. I (1824), p. 69; Sprengel, Syst. II (1825), p. 568; — *Delima guianensis* Rich. ex D.C., Syst. I (1818), p. 408; id., Prodr. I (1824), p. 70; — *Doliocarpus dentosus* Mart. in Flora XXIV, App. II (1841), p. 65; Hb. Fl. Bras. n. 579; Eichler in Fl. Bras. XIII. 1 (1863), p. 75; Pulle, Enum. (1906), p. 296; Benoist in Bull. Soc. bot. Fr. t. 60 (1913), p. 397; — *D. spinulifer* Miq. in Linnaea XVIII (1844), p. 266; —? *D. brevipedicellatus* Garcke in Linnaea XXII (1849), p. 47; Pulle, Enum. (1906), p. 297.

Climbing or, sometimes, erect shrubs; branches more or less asperulous, when young puberulous, glabrescent. Petioles 4—11 mm long, pilose, glabrescent, narrowly alate and sulcate above by the decurrent limb. Limb 5—13 cm long, 2—6 cm wide, ovate-elliptical,

lanceolate-elliptical, elliptical-oblong or elliptical, acuminate and acute at the apex, cuneate, acute or rounded at the base; the margin serrate-dentate and spinulose in the upper part, repand near the base, sometimes the whole margin more or less repand or entire; coriaceous, grey-violaceous or fuscous and often shining above, paler and dull beneath, on the upper side sparsely and on the lower side densely covered with very small white scales, provided in the centre with a patent, persistent or, more often, deciduous hair; midrib appressed pilose and, like the 6—10 lateral nerves, prominent at both sides; the nerves appressed pilose beneath. Flowers in c. 2—6-flowered, axillary fascicles; the pedicels 1—5(—10) mm long, densely puberulous; the bracts small, puberulous. Sepals 5, ovate-oblong or suborbicular, minutely pilose at both sides, unequal, up to 7 mm long and 5 mm wide. Petals 3—4, pale yellow, broadly obovate, up to 9 mm long and wide, narrowed and unguiculate at the base, minutely pilose and glabrescent outside. Stamens numerous, more or less recurved in bud; filaments filiform, c. 4 mm long; anthers oblong, hardly 1 mm long. Carpel 1, hirtellous, 2-ovuled; style c. 5 mm long, inserted laterally at the apex; stigma obliquely peltate. Fruit globose, up to 11 mm in diameter, densely and minutely hirtellous, 2-seeded; the seeds nearly black, up to 7 mm long and 5 mm wide, applanate, completely enclosed by the aril.

Distribution: Central America, Tropical South America.

Suriname: Gonini R. (B.W. n. 3717 (U.), fl. & fr. Febr.); Tapanahoni R., near Drie-Tabbetje (Versteeg n. 725 (U.), fl. Aug.); near Paramaribo, Laan van Tourtonne (Focke n. 814 (U.), fl. & fr. Sept.); near Paramaribo Kegel n. 122 (Goet), fr.; Kegel n. 374 (Goet), fl. & fr. July); Suriname R., near pl. Merveille (Splitgerber n. 540 (L.), fr. Jan.); id., near Bergendaal (Focke n. 364 (U.), fr.); id., near pl. Boschland (Tresling n. 7 (U.), fr. July); id., near Jodensavanne (Kegel n. 1186 (Goet), fl., ex Garcke): Lower Saramacca R., near pl. Vier Hendrikken (Went n. 226 (U.), fr. Aug.); Nickerie R., near Akwansa (B.W. n. 3536 (U.), fr. Sept.); without locality (Rolander s.n., fr. [SBT.], type of *D. major* Gmel.; Rolander s.n., fl. buds [SBT.], type of *D. Rolandri* Gmel.; unknown collector n. 43 (U.), fl. July; Hostmann n. 537 (P., U.), fl.; Hostmann n. 1096 (P.); Kappler n. 104 (L.), fl.; Hostmann s.n. (Goet), fl. & fr.; Hostmann s.n. (L.), fl.).

Vernacular names: Dija tetee, Watra houteté (N.E.); Taméjéöerang (Kar.).

Doliocarpus surinamensis Lanj. nov. spec.

differt ab omnibus congeneribus foliis nitidis, nervis lateralibus conspicue conjunctis.

Frutex scandens, glaber, ramulis teretibus, griseis. Petioli 0.5—2 cm longi, limbo decurrente in parte superiore anguste alati, teretes,

nigrescentes. Limbus c. 8—18 cm longus, 3—7.5 cm latus, obovatus, apice rotundato breviter obtuseque acuminatus, basi cuneatus, margine integer, revolutus, glaber, praesertim supra nitidus, coriaceus, nervis lateralibus costaque praesertim subtus prominentibus, nervis lateralibus c. 8—11 conspice 4 mm a margine arcuato-conjunctis, venulis laxe reticulatis, utrinque conspicue prominentibus. Inflorescentia verisimiliter pauciflora, pedicellis statu fructigero c. 5 mm longis. Flores evoluti vel deflorati tantum suppetunt. Sepala 5 (?), 3 exteriora oblonga, c. 5—6 mm longa, c. 3.5 mm lata, extus minute pilosa. Corollam non vidi. Stamina numerosa, filamentis filiformibus, apice paulo dilatatis, antheris parvis, oblongis. Ovarium 1, pilis patentibus dense vestitum. Fructus globosus, lignescens, glabrescens, c. 2 cm diametiens. Semen 1, nigricans, oblongum, c. 1.5 cm longum, c. 1 cm latum, arillo membranaceo circumdatum.

Surinamo: loco exacto ignoto (B.W. n. 12 Typus (U.), fr. m. Apr.); fluv. Lucie (Hulk n. 404 (U.), fl. m. Dec.).
Nomen vern.: Mabijara.

Tetracera surinamensis Miq. var. **reticulata** Lanj. nov. var.

Folia 4—7 cm longa, 2.5—4 cm lata, supra laevia, nitida, nervis lateralibus distincte 0.5 mm a margine anastomosantibus, venulis conspicuis, reticalatis, utrinque prominentibus. Sepala obovato-oblonga. Capsula laevis, nitida, brunnea, c. 4—5 mm longa, stylo c. 2 mm longo, persistente coronata; semen solitare, parvum, arillo magno, obliquo, ad medium lacinulato circumdatum.

Surinamo: fluv. Suriname sup., prope Goddo (Stahel n. 86, Typus (U.), fr. m. Jan.).

CONNARACEAE auctore J. Lanjouw.

Rourea Kappleri Lanj. nov. spec.

Roureae amazonicae affinis, differt foliis minoribus nervisque lateralibus distincte anastomosantibus.

Frutex scandens (?). Folia imparipinnata, bijuga, glabra; petiolus cum rhachite 6—9.5 cm longus; petioluli usque 2—3 mm longi, nigri, crassi, transverse rugulosi; foliola elliptica vel ovato-elliptica, subcoriacea, apice plicata, 5.5—9.5 cm longa, 2.8—4.6 cm lata, concoloria. utrinque lucida, acuminata, basi rotundata, costa subtus valde prominente, subimpressa, nervis lateralibus utrinque 5—7, distincte ante marginem anastomosantibus, ut venulae laxe reticulatae supra evanescentibus, subtus distincte prominentibus. Paniculae pseudoterminales ad 8 cm longae, rhachibus, ramulis, bracteisque

rufescente puberulis; bracteae minutae vix 1.5 mm attingentes, spinescentes, carinatae. Pedicelli c. 7 mm longi, puberuli, 1 mm supra basin articulati et minute bibracteolati, Calyx profunde 5-lobata, lobis oblongo-lanceolatis, extus puberulis, intus villosulis, c. 2.5 mm longis. Petala c. 5 mm longa, c. 1.5 mm lata, glabra. Stamina 10, 5 episepalia c. 2 mm longa, 5 epipetalia c. 3 mm longa, filamentis glabris basi in tubum brevem connatis, antheris dorsifixis. Carpella 5, libera, villosa, stylis c. 1.5 mm longis, glabris, stigmatibus capitatis. Fructus ignotus.

Surinamo: loco exacto ignoto (KAPPLER n. 95 (L.), fl. Typus).

HUMIRIACEAE auctore R. C. Bakhuizen van den Brink fil.

Sacoglottis kaboeriensis Bakh. f. nov. spec.

ad sectionem *Schistostemon* Urban pertinens. *S. macrophyllae* (Benth.) Urb. affinis, differt inflorescente longiore, floribus multioribus, calyce corollaque dense griseo-piloso, connectivo ovato.

Arbor, 15 m alta. Ramuli tereti usque compressiusculi, glabri. Folia oblonga usque oblongo-lanceolata, acuminata, repanda, coriacea, glabra, utrinque conspicue venulata, supra viridescentia nitidaque, subtus fusca, 14—16 × 5—7.5 cm, 0.5—1 cm petiolata. Inflorescentia plura dichotoma, supra 50-florigera, 4—5.5 cm longa; pedunculo compresso, costato, minute griseo-piloso, 2—3 cm longo; cymis dense griseo-pilosis, patulis; bracteis triangularibus, pubescentibus, usque 1.5 mm longis. Calyx usque fere dimidio connato, lobis suborbicularibus, usque obtuso-ovatis, dense minute griseo-pilosis. Petala albido-viridia, late lanceolata, griseo-pilosa. Stamina 20, filamentis praedita, antheris 2-theciferis, 5 longioribus triantheriferis, antheris breviter pedicellatis, connectivo ovato; staminodia adsunt. Discus integer, dentatus. Ovarium globosum, glabrum; stylus brevissimus, glaber. Fructus ignotus.

Surinamo: fluv. Corantijne, Kaboerie, Arbor n. 138 (B.W. n. 2068, Typus (U.), fl. m. Juno).
